

§ 87.149

§ 87.149 Special requirements for automatic link establishment (ALE).

Subpart E—Frequencies

Brief signalling for the purposes of measuring the quality of a radio channel and thereafter establishing communication shall be permitted within the 2 MHz-30 MHz band. Public coast stations licensed under part 80 of this chapter providing high seas service are authorized by rule to use such signalling under the following conditions:

§ 87.169 Scope.

This subpart contains class of station symbols and a frequency table which lists assignable frequencies. Frequencies in the Aviation Services will transmit communications for the safe, expeditious, and economic operation of aircraft and the protection of life and property in the air. Each class of land station and Civil Air Patrol station may communicate in accordance with the particular sections of this part which govern these classes. Land stations in the Aviation Services in Alaska may transmit messages concerning sickness, death, weather, ice conditions or other matters relating to safety of life and property if there is no other established means of communications between the points in question and no charge is made for the communications service.

(a) The transmitter power shall not exceed 100 W ERP;

(b) Transmissions must sweep linearly in frequency at a rate of at least 60 kHz per second, occupying any 3 kHz bandwidth for less than 50 milliseconds;

(c) The transmitter shall scan the band no more than four times per hour;

(d) Transmissions within 6 kHz of the following protected frequencies and frequency bands must not exceed 10 µW peak ERP:

(1) Protected frequencies (kHz)

2091.0	4188.0	6312.0	12290.0	16420.0
2174.5	4207.5	8257.0	12392.0	16522.0
2182.0	5000.0	8291.0	12520.0	16695.0
2187.5	5167.5	8357.5	12563.0	16750.0
2500.0	5680.0	8364.0	12577.0	16804.5
3023.0	6215.0	8375.0	15000.0	20000.0
4000.0	6268.0	8414.5	16000.0	25000.0
4177.5	6282.0	10000.0		

(2) Protected bands (kHz)

- 4125.0-4128.0
- 8376.25-8386.75
- 13360.0-13410.0
- 25500.0-25670.0

(e) The instantaneous signal, which refers to the peak power that would be measured with the frequency sweep stopped, along with spurious emissions generated from the sweeping signal, must be attenuated below the peak carrier power (in watts) as follows:

(1) On any frequency more than 5 Hz from the instantaneous carrier frequency, at least 3 dB;

(2) On any frequency more than 250 Hz from the instantaneous carrier frequency, at least 40 dB; and

(3) On any frequency more than 7.5 kHz from the instantaneous carrier frequency, at least $43 + 10\log_{10}$ (peak power in watts) db.

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§ 87.171 Class of station symbols.

The two or three letter symbols for the classes of station in the aviation services are:

Symbol and class of station

- AX—Aeronautical fixed
- AXO—Aeronautical operational fixed
- DGP—Differential GPS
- FA—Aeronautical land (unspecified)
- FAU—Aeronautical advisory (unicom)
- FAC—Airport control tower
- FAE—Aeronautical enroute
- FAM—Aeronautical multicom
- FAP—Civil Air Patrol
- FAR—Aeronautical search and rescue
- FAS—Aviation support
- FAT—Flight test
- FAW—Automatic weather observation
- MA—Aircraft (Air carrier and Private)
- MA1—Air carrier aircraft only
- MA2—Private aircraft only
- MOU—Aeronautical utility mobile
- MRT—ELT test
- RL—Radionavigation land (unspecified)
- RLA—Marker beacon
- RLB—Radiobeacon
- RLG—Glide path
- LLL—Localizer
- RLO—VHF omni-range
- RLS—Surveillance radar
- RLT—Radionavigation land test
- RLW—Microwave landing system